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Notice of Allowability	Application No.	Applicant(s)	
	10/600,844	GOROHATA ET AL.	
	Examiner	Art Unit	
	Tran N. Nguyen	2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--
 All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to 7/29/04.
2. ☐ The allowed claim(s) is/are 1-12.
3. ☒ The drawings filed on 23 June 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED OFFICE ACTION

WITHDRAW Restriction Requirement

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. **Claims 1-11** drawn to structure of a stator with stator coil winding structural arrangement classified in class 310, subclass 179.
- II. **Claim 12** is drawn to production method of a stator with the process of making the stator coil winding arrangement, classified in class 29, subclass 596

is hereby withdrawn.

In this particular application, the method claimed language recites similar limitations as in the structure claims. The Examiner, therefore, agrees with the applicant's remark regarding the method claim and the structure claims are closely related as being within the same field of search.

Allowable Subject Matter

Claims 1-12 are allowed.

Reason for Allowability

The following is an examiner's statement of reasons for allowance:

In combination with other limitations recited in the claims, the primary reason for the allowance is the including the following particular limitations of a stator coil including sequentially-connected conductor segments for an electric rotary machine, comprising:

a plurality of conductor segments accommodated in a slot of a stator core having an even number of conductor accommodation positions serially aligned in the radial direction, said

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conductor segments being sequentially connected to cooperatively constitute one turn of a phase coil of an M-phase (M is an integer not smaller than 3) armature coil,

each of said conductor segments having a pair of in-slot conductor portions separately accommodated into the conductor accommodation positions of two different slots mutually spaced by substantially one pole pitch,

a head conductor portion continuously extending from said in-slot conductor portions and protruding from one end of said stator core so as to constitute a head side coil end, and

a pair of tail conductor portions continuously extending from said in-slot conductor portions and protruding from the other end of said stator so as to constitute a tail side coil end,

said head conductor portion having a U-shaped head top portion, and a pair of head slanting portions extending obliquely in both circumferential and axial directions from said head top portion and respectively connected to said in-slot conductor portions,

said tail conductor portions having a pair of tail slanting portions extending obliquely in both circumferential and axial directions from said pair of in-slot conductor portions, and tail joint portions formed at distal ends of said tail slanting portions and bonded to tail conductor portions of other conductor segment, said head side coil end including a plurality of said head conductor portions serially disposed in the radial direction when seen from the circumferential direction, and

said tail side coil end including a plurality of said tail conductor portions serially disposed in the radial direction when seen from the circumferential direction,

wherein said tail side coil end includes a plurality of said tail joint portions disposed serially in the radial direction with predetermined gaps, and a radial gap between adjacent tail slanting portions disposed in the radial direction is widened in the vicinity of said tail joint portions compared with a radial gap in the vicinity of an end surface of said stator core, as recited in claim 1 (figs 10-11), or

said tail side coil end including a plurality of said tail conductor portions serially disposed in the radial direction when seen from the circumferential direction, wherein said tail side coil end includes a plurality of said tail joint portions of the tail conductor portions disposed serially in the axial direction with predetermined gaps, and said tail slanting portions

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are curved or bent at their intermediate points spaced from an end surface of said stator core so as to extend in the radial direction, as recited in claim 9 (figs 12-13).

Comparing to the prior-art of the record, US Patents 6,166,461 and 5,955,804 each prior art reference discloses the end portions of plural winding clusters being spaced apart at a predetermined angle mainly for the purpose of enhancing cool air circulation to reduce generated heat therein, instead of tail side of coil end slanting portions being disposed in the radial direction widened in the vicinity of the tail joint portions, or the tail slanting portions are curved or bent at a intermediate points which spaced from an end surface of the stator core so that the tail side coil ends extend in the radial direction.

Thus, none of the prior art references of the record, either stand-alone or in combination, has taught or suggest the above-mentioned features in combination with other limitations recited in the claims of the present application.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

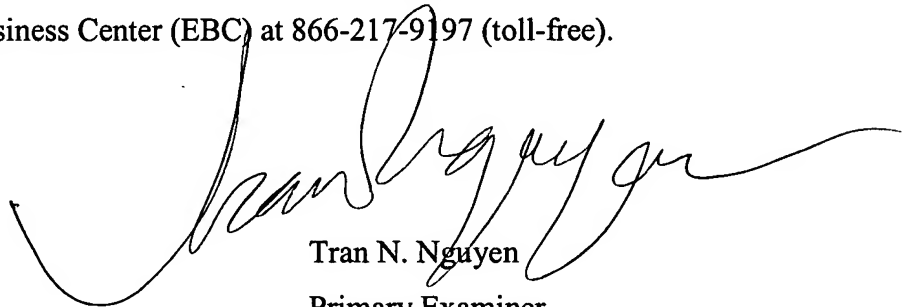
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tran N. Nguyen whose telephone number is (571) 272-2030. The examiner can normally be reached on M-F 7:00AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (571)-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Tran N. Nguyen', is written over the printed name and title.

Tran N. Nguyen

Primary Examiner

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